

Exhibit 3

NO.

McCOLLUM § IN THE DISTRICT COURT OF
§ TEXAS
vs. § JUSICIAL DISTRICT
§
LIVINGSTON (HUTCHINS UNIT) §

AFFIDAVIT OF RONALD W. BROWN, P.E.

STATE OF TEXAS §

COUNTY OF HARRIS §

BEFORE ME, the undersigned authority, on this date personally appeared Ronald W. Brown, P.E., who being by me first duly sworn, did depose on his oath and state as follows:

1. My name is Ronald W. Brown. I am over the age of twenty-one, of sound mind, and am in all ways competent to make this affidavit. The facts stated herein are based upon my personal knowledge and are true and correct.
2. I am a licensed professional engineer actively engaged in the practice of engineering in the state of Texas. I hold a Bachelor of Science degree in Mechanical Engineering from Lamar University (1972), am a Registered Professional Engineer in Texas (#45599) and have been registered in 23 other states. My education and experience are set forth in greater detail in the attached *curriculum vitae*.
3. I have been a member of several professional associations, including the American Society of Heating, Refrigerating and Air-Conditioning Engineers (ASHRAE), the Construction Specifications Institute (CSI), American Society of Plumbing Engineers (ASPE), National Fire Protection Association (NFPA), International Conference Building Officials (ICBO), Institute of Engineering Science (IES), American Society of Mechanical Engineers (ASME), Texas Society of Professional Engineers (TPSE), and the Society of American Value Engineers (SAVE). I have also served as the President of the Houston chapter of the CSI, a member of the Board of Governors of the Houston chapter of ASHRAE, and President of the Houston chapter of ASPE.
4. My professional career began with Associated Engineering Consultants in Houston Texas in 1972, where I designed mechanical, electrical and plumbing systems. I joined Cook and Holle Engineers in Houston, Texas, in 1974 as a project engineer, designing mechanical systems. In 1976, I joined Fluor Engineers and Constructors, in Houston,

where I designed mechanical systems for industrial projects and work on projects in Saudi Arabia. Beginning in August of 1979, I served as a project manager for Brady Lohrman Pendleton Diab Engineers in Houston, designing mechanical, electrical and plumbing (MEP) systems for commercial projects and managed a staff of 20 persons. In 1981, I joined Wood Leppard Mechanical Contractors as a project manager in Houston, where I supervised the construction of mechanical systems for commercial projects and estimated the cost of mechanicals for those projects. Beginning in 1982, I served as Vice President of David W. Day Associates, Inc, an MEP firm in Houston, where I managed the firm's staff of 17 persons and performed and supervised MEP design and energy analysis. In 1985, I became a partner in Day Brown Rice, Inc. in Houston, and managed the firm's staff of 45 persons, performed and directed MEP design and energy analysis, wrote specifications, developed proposals and negotiated contracts. I became a partner in DBR Engineering Consultants in Houston Texas in 1988, and performed the same functions as I had at Day Brown Rice. From 2004 to the present I have been working as an independent professional engineering consultant.

5. My expertise includes HVAC systems, plumbing systems, automatic control systems, energy management, electrical systems, fire protection systems, MEP specifications, energy audits and due diligence reports. I have dedicated a great number of years to designing and supervising the construction of mechanical systems, including HVAC systems. I am intimately familiar with the design, components, characteristics and operation of heating systems, including the operation, maintenance and repair of heating systems designed for residential use and commercial projects.
6. In addition to the foregoing summary of my professional qualifications, attached as Exhibit A and fully incorporated in this affidavit, is a true and correct copy of my current *curriculum vitae*, which summarizes my relevant qualifications, including professional education, certifications, and experience as an expert in the professional practice of mechanical engineering as applied to the design, operation and maintenance of mechanical, electrical and plumbing systems.
7. I have been engaged by Jeff Edwards as a consultant in this Cause. In accordance with his request, I have reviewed the specifics related to the Air Conditioning systems installed at the Hutchins State Jail and other similar projects. This jail is located southeast of Dallas in Dallas County and I personally inspected the facility.
8. I have reviewed the following documents:
 - a. Deposition of Tommy Vian and exhibits
 - b. Deposition of Kim Farguson and exhibits
 - c. Documents related to air handlers and HVAC systems at the Hutchins Unit
 - d. Temperature and humidity logs form the Hutchins Unit
 - e. Email correspondence between Roy Storie and Jeff Pringle
 - f. Expert report of James Balsamo

GENERAL COMMENTS:

- A. There are numerous existing buildings at the Hutchins Facility. There are 12 buildings on the site, not counting the small storage buildings. We toured 4 of the buildings including the chow hall, medical building, building K (where the solitary confinement cells are located), the C building, the C7 dormitory unit in the C building, the chapel area, and the administration building (including the armory).
- B. It appears that all the buildings are air conditioned except the chow hall and dormitory buildings. The chow hall and dormitory buildings are only heated and ventilate, but not air conditioned.
- C. The buildings are all sheet metal roofs with concrete block walls and steel structure. There was insulation visible in each of the observed buildings.
- D. Each of the buildings were air conditioned except the chow hall and the dormitory buildings. I estimate the interior temperature of these buildings in the summer would be at least 105 to 108 degrees. The humidity would track the outside air conditions. From reviewing the data, I see the humidity regularly exceeds 60 percent during the summer, and the heat indexes routinely exceed 100, even reaching 120 or 130. In fact, heat logs documented by TDCJ showed heat index temperatures exceeded 135 on numerous occasions in the days preceding Mr. McCollum's death. These are unlivable conditions. I understand these conditions have been recorded and made available to prison officials, including the warden.
- E. There are ventilation fans installed in the chow hall and the dormitory buildings. The ventilation fans added, but would not decrease the dry bulb conditions. Thus, these buildings would be unbearably hot.
- F. Our onsite observation occurred on Sept. 23, 2013. We arrived about 10:00 and left about 2:00. The outside air temperature was measured and was approximately 74 in the morning and rose to approximately 81 degrees in the afternoon. The humidity was also measured, and arranged from 20% to about 40% RH.
- G. The interior temperatures of each building observed was measured and recorded to be 80 degrees in the un-air conditioned buildings and about 74 in the air conditioned buildings.
- H. The chow hall was also heated and ventilated only. The kitchen area would be unbearably in the summer. I can only imagine what happens to the humidity when the facility is fully operational and occupied. The ventilation air is distributed thru duct work in the chow hall.

AIR CONDITIONING SYSTEM:

- A. The air conditioning systems consisted of small system "DX" for small zones such as guard stations, and larger packaged equipment that served the administration area and medical area.
- B. The ventilation system that served the dormitory buildings was a packaged unit similar to the large air conditioners, but these were gas fired heating and ventilating units (HVU) only. The units were approximately 1.5 cfm/sq. foot, capacity each for the area served.
- C. The dormitory buildings also had numerous small fans that served the sleeping areas only, and supplemented the HVU units. There were between 6 and 8 fans for the sleeping areas, which added an additional 8-12 cfm per square foot. Keep in mind; these fans all add additional heat to the space when they are operating.

ALTERNATIVES AVAILABLE:

- A. It is possible to add additional air conditioning to the dormitory buildings and at the chow hall. There are numerous alternatives available.
- B. The least expensive would be to add refrigerant coils to the existing HVU located in each un-air conditioned building. The cooling coils could be added to the existing duct work and the condensing units would be located outdoors close to the HVU units. I estimate 12,000 cfm capacity cooling coils, which is approximately 30 tons additional capacity for each half of the building. This is approximately \$120,000 to add air conditioning for each half of the building. Each Dormitory Building contains 8 dormitories total in each building. The calculations are based on 4 dormitories or half of each building. This number can be decreased by using a different design temperature of 75 degrees. If the goal was only to reduce the interior temperatures to 80 or 85, the cost would be further reduced.
- C. It is also possible to add air conditioning to the dormitory buildings with the use of package roof top units connected to the existing duct system. The capacity would be similar to that as described in paragraph B above. The cost would be approximately \$150,000 for each building, with the majority of the cost extra coming from structural additions.
- D. It is also possible to add smaller Split system DX type of equipment. They could be installed three 10 ton small fan coil units in each dormitory area. These fan coil units would be smaller, lighter, and less noisy. I estimate the cost as \$180,000 for each of the dormitory buildings.

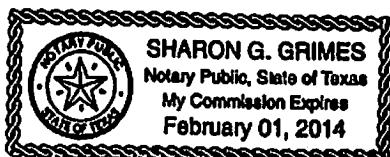
CONCLUSIONS:

- A. The day we observed the buildings, the outside air temperature was cool and the relative humidity was low. The temperatures inside the dormitories were reported to be far above 100 degrees in the summer.
- B. It is relatively easy to air condition the buildings that are not presently air conditioned. There are alternatives available.
- C. The only reason to not air condition the buildings is to save money in the short term or to punish prisoners.

Further, affiant sayeth not.


RONALD W. BROWN, P.E.

19th SUBSCRIBED and SWORN TO before me, by the said Ronald W. Brown, on this the day of December, 2013, to certify which witness my hand and seal of office.




Sharon G. Grimes
Notary Public in and for the State of Texas

RONALD W. BROWN, P.E.

Professional Engineering and Consulting

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Houston, TX 77027-7525

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SUMMARY OF QUALIFICATIONS

- 40 Years experience in design of MEP systems for Residential, Commercial, Educational, and Industrial Projects
- Managed projects ranging from \$100,000 to \$33 million
- Directed medium sized commercial engineering firm
- Determined MEP systems, Fire Protection Systems and Energy Management System
- BSME 1972 Lamar University, Beaumont, Texas
- Have been Registered in 23 states
- NCEES License #8384

AREAS OF EXPERTISE

• HVAC Systems	• Electrical Systems
• Plumbing Systems	• Fire Protection Systems
• Automatic Control Systems	• "MEP" Specification Writing
• Energy Management	• Energy Audits
• Litigation Support	• Due Diligence Reports

EXPERIENCE

Ronald W. Brown, P.E. <i>Professional Engineering & Consulting</i>	2004-Present
DBR Engineering Consultants (Houston, TX) <i>Partner</i>	Feb. 1988 thru June 2004
– Managed MEP Engineering firm (70 people) – Performed and directed MEP design, energy analysis and wrote specifications – Developed proposals and negotiated contracts	
Day Brown Rice, Inc. (Houston, TX) <i>Partner</i>	June 1985 thru Feb. 1988
– Managed MEP Engineering firm (45 people) – Performed and directed MEP design, energy analysis and wrote specifications – Developed proposals and negotiated contracts	
David W. Day Associates, Inc. (Houston, TX) <i>Vice President</i>	June 1982 thru June 1985
– Managed MEP Engineering firm (17 people) – Performed and supervised MEP Design & Energy Analysis	
Wood Leppard Mechanical Contractors (Houston, TX) <i>Project Manager</i>	Sept. 1981 thru June 1982
– Supervised construction of mechanical systems for commercial projects – Estimated mechanical cost of projects	

Ronald W. Brown, P.E.
Page 2

Brady Lohrman Pendleton Diab Engineers (Houston, TX)	Aug. 1979 thru Sept. 1981
<i>Project Manager</i>	
– Designed MEP systems for commercial projects	
– Managed staff of 20 people	
Fluor Engineers and Constructors (Houston, TX)	Feb. 1976 thru Aug. 1979
<i>Project Engineer</i>	
– Designed Mechanical Systems for industrial projects	
– Worked in Saudi Arabia	
Cook and Holle Engineers (Houston, TX)	March 1974 thru Feb. 1976
<i>Project Engineer</i>	
– Designed Mechanical Systems	
Associated Engineering Consultants (Houston, TX)	June 1972 thru March 1974
<i>Engineer in Training (EIT)</i>	
– Designed Mechanical Systems	
– Designed Electrical Systems	
– Designed Plumbing Systems	

PROFESSIONAL AFFILIATIONS

President – Houston Chapter of Construction Specifications Institute	1996 - 1997
Board of Governors – Houston Chapter of ASHRAE	1991 - 1994
President – Houston Chapter of ASPE	1983 - 1985
Have been a Member of: ASHRAE, CSI, ASPE, NFPA, ICBO, BOCA, IES, ASME, TSPE, SAVE	

PERSONAL AFFILIATIONS

Lifetime Committeeman – Houston Livestock Show and Rodeo	Since 2000
Member of the Arabia Shriners	Since 1979
Royal Order of Scotland	Since 1994
Lifetime Member of Sons of the Republic of Texas	Since 2003
Past President of San Jacinto Chapter #1 of the Sons of the Republic of Texas	2010-2012
Member of Sons of the American Revolution	Since 2011

Job Number	Client	Contact
12-0004	Cozen O'Conner	John W. Reis
12-0011	Miller, Scamardi & Carrabba	Joseph Scamardi
12-0012	Touchstone Bernays	C. Todd Hewes
12-0017	Phillips Akers Womac	George Edwards III
12-0019	Martin, Disiere, Jefferson & Wisdom	Holly Terrell
12-0021	Bayne, Snell & Krause	Barry Snell
12-0022	Miller, Scamardi & Carrabba	Joseph Scamardi
12-0027	Zukowski, Bresenhan & Sinex	Matt Noll
12-0029	Phillips Akers Womac	George Edwards III
12-0035	Spire Consulting Group	John Wolf
12-0036	Phillips Akers Womac	Charles Gonzales
12-0037	Ellington & Associates	

Name of Case

Kansas House

Field of Dreams

Lee Lewis Cons. V Tri-Dal Excavation

Mersino V Industrial Tx Corp

GPM Houston V Fireman's Fund Ins

Embassy Suites V Mitchell Carlson Arch. & RLB Eng

Katherine Tindal V River Oaks CC

Kuhfeldt Residence

Boring & Tunneling V Mersino

Scott Van Dyke Home

Letsos V MC Medical Campus

Adams V Geva

Style of Case	Deposed	Court Appearance	Deposition
Water loss event	No		Pending
Electrical/Lighting of Athletic Field	No		
Failure of slab	No	No	
Breach of Contract;Failure to pay for rental equip			Pending
Storm Damage to Rooftop AC Units			Pending
Delay in Construction	Yes		Pending
Fall w/ injury; Possible poor lighting	No	No	Pending
			Pending
Improper Construction			Pending
Water intrusion events (2)			Pending
Furnace			Pending

Job Number	Client	Contact	Name of Case
11-0004	The Tribble Firm, PLLC	Dale Tribble	Rio 24 Cigars
11-0008	Murray, Lobb, PLLC	Scott M. Hunter	Stooksberry vs Yuppie Dog
11-0012	The O'Quinn Law Firm	Russell T. Lloyd	Weiss vs Tucker
11-0018	Coats Rose		Wharton County Shopping Center
11-0019	Wilson Elser Moskowitz Edelman & Dicker	Lee S. Stanley	Garth House
11-0020	Johnson Trent West & Taylor, LLP	Joshus W. Mermis	7575 Kirby
11-0033	Stuber Cooper Voge, PLLC	Brian Cooper	East Bernard ISD
11-0044	Ayres Warren Shelton & Williams LLC	Jason W. Poe	Gonzalez vs Emerald
11-0046	Phillips & Akers PC	George Edwards III	John Moore Water Heater
11-0049			Sapphire, Corpus Christi

Style of Case	Deposed	Court Appearance	Disposition
HVAC Design, Cigar Humidor	No	No	Pending
General Contractor Being sued	Yes	Yes	Won
Chandelier Failure	Yes	No	Settled

Moisture/Mold & Mildew

Roof Drainage Problem	No	No	Pending
Unresolved MEP Design Problems	No	No	
Plumbing	No	No	Pending
Water Heater Failure	No	No	Pending
	No	No	Pending

Job Number	Client	Contact
09-003	Hermes,Sargent,Bates, LLP	Anthony Lowenberg
09-0016	Kochman, Donati & Charbonnet	John Charbonnet
09-0021	Ellington & Davis	James "Jim" Davis
09-0022	Andy McCormick	Andy McCormick
09-0034	Geiger,Laborde & Laperouse, LLC	Connie Hawkins
09-0047	Crain Caton & James,LLP	Henry Kollenberg
09-0048	Coats Rose Yale Ryman Lee	Chris Ryman
09-0053	Hermes Sargent Bates, LLP	Chris Hansen
09-0062	Engvall & Hlavinka	Brian Lopez
09-0070	Fullrson, Feder, Lucero & Wollam,LL	Eric Wollam
09-0071	Geiger,Laborde & Laperouse, LLC	Andrew Braun
09-0073	Martin, Disiere, Jefferson & Wisdom	Melinda Elder

Name of Case	Style of Case
Gainesville ISD v. Darrow McSpadden Sellars	Air Pressurization Problem in School,
Seven Acres v. Murray & Associates	MEP Design Problems, rep: engineer
Aguilar v. Jeffe	Smoke Generation Machine, rep: owner
Jack Abaricia	Hot water heating system, rep: owner
Bladimir Barrientos v. Darling Homes	Mold/Mildew, rep: mech contractor
Gracepoint v. Milestone	Temp electrical svc. Problem, rep: dev
Matthews v. Meritage	HVAC/Mold, rep: contractor
Dallas Interurban v. Merriam Architects v. Toub	City Rejections, rep: engineer
Foundation Surgery v. Shiloh Enterprises	Humidity Problems, rep: mech contrac
Inwood v. Miner Dedrick v. Graves	Temperature Problems, rep Mech con
Hidalgo County v. Landmark Organization, LP	Fire Alarms, rep: owner
Rusnak v. WCLLC, LP & Waller Contracting, LLC	Energy Code Compliance, rep: owner

Deposed	Court Appearance	Disposition
No	No	Pending
		Pending
No	No	Pending
No	No	Pending
No	No	Pending
Yes	Yes	Win
No	No	Pending
No	No	Pending
or		Pending
No	No	Pending

Job Number	Client	Contact
08-0001	Barker, Leon & Fancher, L.L.P	Rick Fancher
08-0014	Kochman, Donati & Charbonnet,LLP	John Charbonne
08-0020	Singleton Cooksey, LLP	Robert Singleton
08-0029	Sedwick,Detert,Moran &Arnold, LLP	Colin Batchelor
08-0031	Royston,Rayzor,Vickery & Williams,L	Mauricio Chavez
08-0045	Glast, Phillips & Murray,PC	Richard Avery
08-0068	check 06-0022	

Name of Case
Coastal Bend Surgery Center,Ltd v. Cooper Medical Bldgs, Inc.
Seven Oaks Retirement Center v. Murray Engineers
Paige Kincade & Steve Wang v. E.E. Reed Const., LP, et. al.
First Service AC Contractors v. United Refrigeration,Inc, Texas Reps. Inc v. Phar
Holiday Inn, Pharr, Tx
Dickinson ISD v. CRE 8 Architects
Arch Spec. Ins. Co. v A. J. Antonini, Dba Antonini & Assoc.

Style of Case	Deposed	Court Appearance
HVAC Problems,rep:owner		

HVAC Problems,rep:Mech Contractor
Mold/Mildew,HVAC, rep:owner

Disposition

Dismissed